

The specification and claims 1 and 4 have been amended to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, at the top of page 1 of the specification, the title recited there has been amended to conform to the title originally set forth on the title page of the application. The specification has also been amended to identify the cross-noted applications by serial number, filing date and their relationship to the present application. Furthermore, the specification has been amended to correct the filing date of the parent application. It is believed to be clear that the foregoing specification amendments do not involve the introduction of new matter.

Claim 1 has been amended to specify that the nucleoside is a mononucleoside and is not limited to triphosphates. 3'-blocked mononucleoside monophosphates, diphosphates and triphosphates are disclosed generally throughout the specification and original claims. Claim 1 has also been amended to correct an improper Markush group. In addition, claim 4 has been amended to correct a typographical error pointed out by the Examiner. It is believed to be clear that the claim amendments also do not involve the introduction of new matter.

For reasons which are submitted below, the claims are believed to be in condition for allowance. The amendments are believed to resolve the concerns raised by the Examiner. Accordingly, reconsideration is respectfully requested.

In the Official Action, the Examiner indicated that claims 2-6 were allowable over the prior art of record, which is gratefully acknowledged. Claim 4, however, was rejected under 35 U.S.C. § 112, second paragraph, for being indefinite for failing to particularly point out and distinctly claim the subject matter Applicants regard as the invention. Claim 4 was rejected because it does not end with a punctuation mark, namely a period. This rejection is respectfully traversed in view of the above claim amendments for the reasons set forth hereinafter.

Claim 4 has been amended to add a period at the end of the claim, as recommended by the Examiner. By amending claim 4 in the manner suggested by the Examiner, this rejection under 35 U.S.C. § 112, second paragraph, has thus been overcome and reconsideration by the Examiner is therefore respectfully requested.

Next, claim 1 was provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claim 1 of co-pending Application Serial No. 08/486,535. The identically claimed subject matter is hereby acknowledged. Applicants have filed Information Disclosure Statements in all related co-pending and commonly owned applications to ensure that this situation is not overlooked. As noted by the Examiner, this rejection is a provisional rejection. Upon receiving an indication that the subject matter of claim 1 is patentable in this or any of the co-pending applications containing this claim, Applicants will cancel the identical claim wherever it occurs in co-pending applications.

Next, Claim 1 was rejected under 35 U.S.C. § 103 as being unpatentable over *Mukai et al.* The Examiner noted that claim 1 is directed to a nucleoside 5'-phosphate having a removable phosphate blocking group protecting the 3' position and cited *Mukai et al.* as disclosing nucleosides with 5-triphosphate and 3'-diphosphate groups. This rejection is respectfully traversed in view of the above claim amendments for the reasons set forth hereinafter.

Claim 1 has been amended to emphasize that the claimed compounds are 3' protected mononucleoside 5'-phosphates. The 3'-diphosphate substituted nucleoside 5'-triphosphates of *Mukai et al.* are substituted at the 5' position with a hexose, riboflavin, choline or dihydronicotinic amide-riboside, or with a nucleoside, nucleotide, dinucleotide or oligonucleotide. Furthermore, *Mukai et al.* do not substitute the 3' position of a nucleoside 5'-triphosphate with a diphosphate and then couple this compound to a hexose, riboflavin, choline or dihydronicotinic amide-riboside, or to a nucleoside, nucleotide, dinucleotide or oligonucleotide. Rather, *Mukai et al.* first couples a nucleoside 5'-triphosphate to the hexose, riboflavin, choline or nicotinic amide-riboside, or to the nucleoside, nucleotide, dinucleotide or oligonucleotide, before substituting the 3'-hydroxyl group with a diphosphate.

Claim 1, as amended, therefore patentably distinguishes over *Mukai et al.* *Mukai et al.* fails to teach the specifically claimed 3' blocked mononucleoside 5'-phosphates, or suggests that the blocking groups are capable of being removed. Instead, the *Mukai et al.* compounds are disclosed as being useful as growth accelerators for animal cells and as anti-leukemia agents. There is no teaching

or suggestion in *Mukai et al.* that the mononucleotide 5'-phosphates of claim 1, when substituted with a 3'-diphosphate group, may be reacted with an initiating substrate having a terminal nucleoside with an unprotected 3'-hydroxyl group in a reaction catalyzed by a template-independent polymerase to form a 5' to 3' phosphodiester linkage, after which the 3'-diphosphate may be removed to regenerate an unprotected, free 3'-hydroxyl group for reaction with another mononucleoside 5'-phosphate blocked at the 3' position with a diphosphate group.


Because *Mukai et al.* fails to teach or suggest mononucleoside 5'-phosphates blocked at the 3' position with the removable moieties of claim 1, or the advantages obtained therefrom, claim 1, by being amended to clarify that it is directed to mononucleosides, patentably distinguishes over *Mukai et al.* under 35 U.S.C. § 103. Reconsideration and withdrawal of this rejection is therefore respectfully requested.

In view of the above amendments to the specification and claims and the foregoing remarks, it is believed that this application is now in condition for allowance. Reconsideration is respectfully requested. However, if the Examiner still believes that there are any objections to this application, he/she is requested to telephone the undersigned at (908) 654-5000.

Finally, if there are any additional charges in connection with this response, the Examiner is authorized to charge Applicants' Deposit Account No. 12-1095 therefor.

Respectfully submitted,

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